

Acronyms & Abbreviations

A

A-ring	Outermost of Saturn's main rings
AACS	Attitude and articulation control subsystem
ACC	Accelerometer
ACP	Aerosol Collector and Pyrolyser (Huygens science instrument)
AFC	AACS Flight Computer
AQ60	Material used for Huygens Probe heat tiles
ASI	Agenzia Spaziale Italiana, the Italian space agency
ASIC	Application-specific integrated circuit
AU	Astronomical unit, the mean distance from Earth to Sun = 149,597,870.694 kilometers

B

B-ring	Brightest and densest of Saturn's rings
BIU	Bus interface unit

C

C-ring	Faint ring inward of Saturn's B-ring
C-type	Asteroid material, rich in carbon
C₂H₂	Acetylene
C₂H₄	Ethylene
C₂H₆	Ethane
C₃H₈	Propane
CH₄	Methane
CAPS	Cassini Plasma Spectrometer (Orbiter science instrument)
CDA	Cosmic Dust Analyzer (Orbiter science instrument)
CDS	Command and data subsystem
CIRS	Composite Infrared Spectrometer (Orbiter science instrument)
CRAF	Comet Rendezvous/Asteroid Flyby spacecraft or mission

D

D-ring	Innermost Saturn ring
D-type	Asteroid material, rich in hydrocarbons
DISR	Descent Imager and Spectral Radiometer (Huygens science instrument)

DSN	Deep Space Network (tracks operating spacecraft)
DWE	Doppler Wind Experiment (Huygens science instrument)

E

E-ring	Outermost Saturn ring
EGA	Engine gimbals actuator
EGE	Engine gimbals electronics
ESA	European Space Agency

F

F-ring	Narrow ring outward of A-ring
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G

G-ring	Diffuse ring at inner edge of E-ring
GCMS	Gas Chromatograph and Mass Spectrometer (Huygens science instrument)
GHz	Gigahertz (billions of cycles per second)

H

H⁺	Hydrogen atom with one electron removed, i.e., a proton
H₂⁺	Hydrogen molecule with one electron removed

APPENDIX B

H₂O⁺	Water molecule with one electron removed		
HASI	Huygens Atmospheric Structure Instrument (Huygens science instrument)		
HC₃N	Cyanoacetylene		
HCN	Hydrogen cyanide		
He⁺⁺	Helium atom with two electrons removed, i.e., an alpha particle		
HGA	High-gain antenna		
	I —		
INMS	Ion and Neutral Mass Spectrometer (Orbiter science instrument)		
IRI	Inertial reference interface		
IRU	Inertial reference unit		
ISS	Imaging Science Subsystem (Orbiter science instrument)		
	J —		
JPL	Jet Propulsion Laboratory		
	L —		
LGA1	Low-gain antenna #1		
LGA2	Low-gain antenna #2		
	M —		
MAG	Dual Technique Magnetometer (Orbiter science instrument)		
MAPS	Magnetospheric and Plasma Science		
MIMI	Magnetospheric Imaging Instrument		
MP	Magnetopause (outer edge of Saturn's magnetic field)		
	N —		
N⁺	Nitrogen atom with one electron removed		
N₂	Nitrogen molecule		
NASA	National Aeronautics and Space Administration		
	O —		
O⁺	Oxygen atom with one electron removed		
ODM	Orbiter deflection maneuver		
OH	Hydroxyl radical		
OH⁺	Hydroxyl radical with one electron removed		
ORS	Optical remote sensing		
		P —	
		PMS	Propulsion module subsystem
		PPS	Power and pyrotechnics subsystem
		R —	
		RADAR	Cassini Radar (Orbiter science instrument)
		RFES	Radio frequency electronics subsystem
		RFS	Radio frequency subsystem
		RPWS	Radio and Plasma Wave Science (Orbiter science instrument)
		R_s	Unit of distance in radii of Saturn (one R _s = 60,330 kilometers)
		RSS	Radio Science Instrument (Orbiter science instrument)
		RTG	Radioisotope thermoelectric generator
		RWA	Reaction wheel assembly
		RWI	Reaction wheel interface

APPENDIX B

S

S Bow shock sunward of Saturn's magnetic field

SED Saturn electrostatic discharge

SKR Saturn kilometric radiation

SOI Saturn orbit insertion

SRMU Solid Rocket Motor Upgrade (part of Titan IV launch vehicle)

SRU Stellar reference unit

SSE Sun sensor electronics

SSH Sun sensor head

SSP Surface Science Package (Huygens science instrument)

T

TCS Temperature control subsystem

U

UK United Kingdom

US United States

UVIS Ultraviolet Imaging Spectrograph (Orbiter science instrument)

V

VDE Valve drive electronics

VHSIC Very high-speed integrated circuit

VIMS Visible and Infrared Mapping Spectrometer (Orbiter science instrument)

VVEJGA Venus–Venus–Earth–Jupiter Gravity Assist